



Salmon catch on deck of floating cannery, part of Japanese deep-sea fleet. (Photo: WHO/Nichiro Gyogyo)

UNITED STATES

New England Fleet Sets Outstanding Safety Record in 1966

In 1966, New England's commercial fishing fleet of over 750 documented motor vessels established an outstanding mark in marine safety: Only 5 medium size otter trawlers were lost at sea. The 4,000 fishermen, without loss of life, landed an estimated 700 million pounds of fish and shellfish worth over \$70 million to the fishermen. This record contrasts sharply with 1964's, when 21 vessels and 6 fishermen were lost at sea, and 1965, when the fleet lost 17 vessels and 9 fishermen.

This extraordinary advance in safety may be attributed in part to the increased attention of vessel operators and crew members to safety on shipboard--as evidenced by widespread use of safety equipment and appliances. Also contributing to the record was the efficiency and skill of the First Coast Guard District's Search and Rescue Branch. In 1966, it carried out over 250 assistance missions to the fishing fleet.

Gloucester and New Bedford Lost 2 Each

The ports of Gloucester and New Bedford each lost 2 vessels from their fleet. The sole remaining casualty came from Woods Hole, Massachusetts. The Gloucester fleet lost the "F/V Raymonde" and "F/V Salvatore and Grace" when the first grounded on Cape Cod in January for a total loss and the second foundered off Gloucester in July.

The "F/V Viking," out of New Bedford, sank in Vineyard Sound in October. Her crew was rescued by another New Bedford vessel, the "F/V Matilda S".

Outward bound from New Bedford in August, the "F/V Mary and Joan" caught fire in Vineyard Sound. The vessel was spotted by the crew of a Northeast Airline plane en route from Nantucket to Boston. The pilot sighted another fishing vessel, the "F/V Charles S. Ashley," alerted and guided it to the blazing craft, and kept circling overhead until the crew had been rescued.

New England Fishing Vessels Lost in 1965

<u>New Bedford</u>	<u>Gloucester</u>	<u>Portland</u>
Anastasia E. Black Hawk Conquest Glen & Maria Portugal Ruth & Nancy Susie O. Carver The Schalls	Eva II Josephine & Margaret Nancy & Maria	Anna C. Mary Anne Snoopy
	<u>Boston</u>	<u>Chatham</u>
	Magellan Olympia	Doris B.

The small otter trawler "F/V Little Chief" out of Woods Hole, storm battered and leaking badly, foundered in Vineyard Sound while under Coast Guard escort to shelter. The two-man crew of the dragger was rescued.



Oil Is Another Worry for New England Fishermen

Add oil to the harsh sea and the strong competition from Soviet trawlers as a major problem facing the New England fishermen. The newest problem results from the belief of several U. S. firms that the rich fishing grounds on Georges Bank, off Massachusetts' rocky coast, can be developed into a big oil and gas producing field.

Some fishermen see in the future giant drilling rigs blocking their tows, polluted fishing grounds, and pipelines on the bottom endangering expensive bottom fishing gear.

Several representatives of the fishing industry met recently in Boston with a leading oil wildcatter to talk about the fishermen's fears. The major fears and the wildcatter's attempts to allay them follow:

● Fishermen: The fishing industry strongly opposes any further use of high explosives on the fishing grounds for seismic readings. (Last September's blasts were blamed for killing many fish.)

Oilman: "Now we can do it electronically. We can do it without killing fish."

● Fishermen: In the future, the density of oil and gas rigs on the grounds might be hazardous to draggers' trawls.

Oilman: "We could agree to locate rigs no closer than 4 miles apart."

- Fishermen: A special chemical mud used as a drilling lubricant might spill over and pollute the water.

Oilman: The mud would be recycled and never be stored in the open. This was done in the Gulf of Mexico.

- Fishermen: A pipeline to the mainland would be hazardous to bottom trawlers.

Oilman: "We would be perfectly willing to have them draw up laws calling for a 6- to 8-foot through for our lines." ("The New York Times," Feb. 26, 1967.)



Industry Plans to Develop Unused Gulf Fish

A Fort Myers, Fla., vessel operator plans to convert one large shrimp vessel to a single-boat purse seiner for thread herring fishing in the eastern Gulf of Mexico. His objective is to furnish raw material to a reduction plant now being built in Boca Grande, Fla.

BCF's Pascagoula, Miss., staff provided technical assistance. The Bureau plans to increase its efforts this year to develop effective harvesting techniques for thread herring and other sardine-like fishes in the Gulf. These fishes are only partially used now but show great potential.



Menhaden Industry Tests Gulf's Bottomfish Potential

A small New Jersey menhaden vessel, converted to a side trawler, has moved to Pascagoula, Miss., to fish the northern Gulf of Mexico for industrial bottomfish. It will fish for 12 months to evaluate the commercial potential of these resources as raw material for fish meal.

The annual production from this area, about 50,000 tons, is used primarily for pet food. The industry was developed partly from information produced by BCF explorations.



Fish Meal Futures Trading Begins on N.Y. Produce Exchange

The New York Produce Exchange opened a market for trading futures contracts in fish meal on March 1. Fish meal is a high-protein, mixed-feed supplement used in broiler and other poultry feed rations.

The Produce Exchange action followed studies begun a year ago with many companies in the fish meal trade in the U. S. and abroad.

What Contract Provides

The futures contract provides for delivery of 100 metric tons of Peruvian or Chilean fish meal to Hamburg, Germany. Cost, insurance, and freight will be paid by the seller and delivered at destination. The meal, to be shipped in standard paper bags, will have the following specifications: 65 percent protein, 10 percent fat, and 10 percent moisture; allowances will be made for slight variations within contract specifications. The market will have 17 trading months into the future, but dealings are to be confined to about 6 active months.

Brochures detailing terms and conditions of the C.I.F. Hamburg Fish Meal Contract can be obtained from Secretary, New York Produce Exchange, 2 Broadway, New York, N. Y. 10004 (Tel. 212-269-3400).



Fishing Vessels Are Required to Use Proper Sound-Producers

Commercial fishing vessels must be equipped with the same type of sound-producing devices used by other motorboats, as the result of amended Federal motorboat regulations that became effective January 1, 1967, reports the U. S. Coast Guard's Boating Safety Branch. Prior to the January 1 amendment, commercial fishermen were permitted to equip motorboats, regardless of class, with any sound-producing device. Now, all recreational and commercial motorboats, except those in certain motorboat races, must carry the proper sound-producers for their particular class.

Class A motorboats are less than 16 feet long. Although not required to have a specific sound-producing device, they must be able to sound the proper signals required by Rules of the Road. The devices required for any other class of motorboat may be used on Class A motorboats.

The Whistles

Motorboats that are at least 16 feet but less than 26 feet long, Class 1, must have a mouth, hand or power-operated whistle. The whistle must produce a blast for 2 or more seconds audible for at least one-half mile.

The whistle for Class 2 motorboats, 26 feet but less than 40 feet long, can be either hand or power operated, but must produce a blast for 2 or more seconds and be audible for at least 1 mile.

The largest class of motorboats, Class 3--boats at least 40 feet but not more than 65 feet long--must be equipped with a power-operated whistle audible for at least 1 mile.



First U. S. Fisheries Exposition Aims to Aid Industry

The first fisheries exposition of its kind in the U. S. will be held in Boston, October 7-14, 1967, in the exhibition area of Suffolk Downs. It will be sponsored by The American Commercial Fish Exposition, Inc., a new firm organized to aid fishing industry--to make fishermen more productive and the industry more profitable.

Seminars and work sessions are being arranged to evaluate problems of detection, catching, marketing, and preparation of fish in relation to basic industry research. Displays of modern fishing equipment from manufacturers around the world will be presented.

To give the display appeal outside the industry, New England's famous seafood restaurants, their chefs, and food processors will be invited to participate.



1966 Imports of Frozen Fish Blocks Declined 3%

U. S. imports of frozen fish blocks in 1966 totaled 206.6 million pounds, down 3.8 percent from the 1965 imports of 214.8 million. Cod accounted for 132 million pounds. Principal shippers were Canada with 47 percent of the total, Iceland 18 percent, Norway 6 percent, and Poland 4.7 percent.



Menhaden Catch Dropped in 1966

The U. S. menhaden catch in 1966 dropped sharply from the 1965 figures in 3 of 4 regions:

States	1966	1965
	(Millions of Pounds)	
Middle Atlantic	17.4	130.2
Chesapeake	266.6	307.9
South Atlantic	211.8	190.5
Gulf Coast	793.6	1,022.4
Total	1,289.4	1,651.0



Pacific Coast Canned Salmon Stocks Are About A Third Above 1966

On January 1, 1967, canners' stocks (sold and unsold) in the United States of Pacific canned salmon totaled 2,991,352 standard cases (48 1-lb. cans)--731,477 cases more than the 2,259,875 standard cases, January 1, 1966.

Of total stocks of 3,982,968 actual cases (cans of $\frac{1}{4}$ -lb., $\frac{1}{2}$ -lb., 1-lb., etc.), red salmon accounted for 1,967,208 cases (808,236 cases were 1-lb. cans, and 774,911 cases were $\frac{1}{2}$ -lb. cans) or 49.4 percent of the total canners' stocks on January 1, 1967; pink salmon was 1,427,496 cases or 35.8 percent (1,060,141 cases were 1-lb. talls). Next came chum (284,646 cases, mostly 1-lb. talls), followed by coho or silver (199,808 cases), and king salmon (103,810 cases). (Division of Statistics and Economics, National Canners Association, Feb. 6, 1967.)



Shrimp Imports Rose 10% in 1966

U. S. imports of all shrimp (fresh, frozen, canned, and dried) in 1966 were 178.5 million pounds--compared to 162.9 million pounds in 1965--an increase of 9.6 percent. Imports from Mexico in 1966 totaled about 68.7 million pounds--compared to 59.9 million pounds in 1965--up 14.6 percent.

In December 1966, shrimp imports (fresh, frozen, canned, and dried) were 17.7 million pounds--compared to 15.2 million pounds in December 1965. Fresh or frozen heads-off shrimp (shells-on) amounted to about 13 million pounds; peeled and deveined, about 3.5 million pounds; frozen breaded (raw or cooked) 86,258 pounds; and other types^{1/} of shrimp products (some dried and canned) about 1.2 million pounds.

Mexico shipped about 8 million pounds during December 1966, compared to 6.1 million pounds in December 1965; about 6.3 million pounds of fresh or frozen heads-off

shrimp (shells-on); peeled and deveined, 1.5 million pounds; frozen breaded (raw or cooked) 86,258 pounds; dried, 1,850 pounds; and other types of shrimp products, 61,626 pounds.

^{1/}Imports of "other types" of shrimp consisted of peeled in airtight containers or canned (145, 622 pounds); cooked but not breaded (68, 250 pounds); dried (59, 138 pounds); and others not specified (892, 903 pounds).



January 1967 Wholesale Prices and Indexes for Edibles

Seasonally light supplies of fresh fish and shellfish at higher prices resulted in a 3-percent rise from December 1966 to January 1967 in the wholesale price index for edible fishery products (fresh, frozen, and canned). At 129.1 percent of the 1957-59 average, the overall index was 3.7 percent higher than January 1966.

The subgroup index for drawn, dressed, or whole finfish rose 10 percent from Decem-

Wholesale Average Prices and Indexes for Edible Fish and Shellfish, January 1967 with Comparisons

Group, Subgroup, and Item Specification	Point of Pricing	Unit	Avg. Prices ^{1/}		Indexes (1957-59=100)			
			(\$)		Jan. 1967	Dec. 1966	Nov. 1966	Jan. 1966
			Jan. 1967	Dec. 1966				
ALL FISH & SHELLFISH (Fresh, Frozen, & Canned)					129.1	125.3	125.0	124.5
Fresh & Frozen Fishery Products:					133.2	126.7	126.5	127.7
Drawn, Dressed, or Whole Finfish:					136.1	123.7	121.0	133.3
Haddock, lge., offshore, drawn, fresh	Boston	lb.	.22	.15	172.3	117.1	115.2	187.4
Halibut, West., 20/80 lbs., drsd., fresh or froz.	New York	lb.	.48	.48	142.0	142.0	142.0	141.0
Salmon, king, lge. & med., drsd., fresh or froz.	New York	lb.	2/.88	.88	2/122.2	122.2	120.2	122.3
Whitefish, L. Superior, drawn, fresh	Chicago	lb.	.75	.71	111.2	105.2	93.3	93.3
Yellow pike, L. Michigan & Huron, rnd., fresh	New York	lb.	.70	.69	114.6	112.9	106.4	122.8
Processed, Fresh (Fish & Shellfish):					133.9	125.7	127.6	128.3
Fillets, haddock, sml., skins on, 20-lb. tins	Boston	lb.	.53	.40	127.6	97.2	114.2	105.7
Shrimp, lge. (26-30 count), headless, fresh	New York	lb.	1.14	1.07	133.8	125.4	120.1	116.0
Oysters, shucked, standards	Norfolk	gal.	8.00	7.75	134.9	130.7	139.1	147.6
Processed, Frozen (Fish & Shellfish):					124.2	124.9	125.1	111.9
Fillets: Flounder, skinless, 1-lb. pkg.	Boston	lb.	.45	.45	114.0	114.0	110.2	101.4
Haddock, sml., skins on, 1-lb. pkg.	Boston	lb.	.38	.39	111.4	114.3	117.3	115.8
Ocean perch, lge., skins on 1-lb. pkg.	Boston	lb.	.30	.31	103.5	108.7	103.5	112.2
Shrimp, lge. (26-30 count), brown, 5-lb. pkg.	Chicago	lb.	1.11	1.11	131.6	131.0	131.0	110.3
Canned Fishery Products:					122.5	3/122.5	122.9	119.3
Salmon, pink, No. 1 tall (16 oz.), 48 cans/cs.	Seattle	cs.	27.00	27.00	117.7	3/117.7	119.9	122.0
Tuna, lt. meat, chunk, No. 1/2 tuna (6-1/2 oz.), 48 cans/cs.	Los Angeles	cs.	13.08	13.08	116.1	116.1	115.0	111.0
Mackerel, jack, Calif., No. 1 tall (15 oz.), 48 cans/cs.	Los Angeles	cs.	8.50	8.50	144.1	144.1	144.1	120.9
Sardines, Maine, keyless oil, 1/4 drawn (3-3/4 oz.), 100 cans/cs.	New York	cs.	11.25	11.25	144.3	144.3	144.3	131.5

^{1/}Represent average prices for one day (Monday or Tuesday) during week in which 15th of month occurs. Prices are published as indicators of movement, not necessarily absolute level. See daily Market News Service "Fishery Products Reports" for actual prices.

Source: U. S. Department of Labor, Bureau of Labor Statistics.

ber to January because of substantially higher prices for nearly all items. At Boston, prices for exvessel large haddock were sharply higher (up 47.1 percent) as a result of very light landings. Prices were up for Lake Superior fresh whitefish at Chicago by 8.7 percent, and for Great Lakes round yellow pike at New York City by 1.5 percent. Although January 1967 prices were considerably higher than January 1966 for whitefish (up 19.2 percent) and slightly higher for frozen western halibut (up 0.7 percent), these were offset by lower prices for haddock (down 8.1 percent). The latter were solely responsible for a 1.6-percent subgroup index decline from January 1966.

Sharply higher prices in January 1967 for fresh haddock fillets, up 31.3 percent from December 1966, were largely responsible for a 6.5 percent rise in the subgroup index for fresh processed fish and shellfish. Haddock landings were light and the supply available for filleting small. Prices at New York City for South Atlantic fresh shrimp rose 6.5 percent from December 1966 to January 1967, and standard shucked oysters at Norfolk were up 3.2 percent. Compared with January 1966, the subgroup index in January 1967 was 4.4 percent higher. Prices rose 20.7 percent for haddock fillets and 15.2 percent for shrimp. January 1967 prices for standard shucked oysters were down 8.6 percent from January 1966.

The subgroup index for frozen processed fish and shellfish dropped 0.6 percent from December 1966 to January 1967. An upward trend in prices at Chicago for frozen shrimp was more than offset by lower prices at Boston for frozen ocean perch (down 4.8 percent) and haddock fillets (down 2.5 percent). Compared with January 1966, the subgroup index in January 1967 rose 11 percent because of much higher prices for shrimp (up 19.3 percent) and flounder fillets (up 12.4 percent). But January 1967 prices were lower for ocean perch (down 7.8 percent) and haddock fillets (down 3.8 percent) than in January 1966.

Prices for all canned fishery products listed in the index were unchanged from December to January. Market conditions appeared relatively steady. There were good supplies of some canned fish items for Lenten demand. Canned salmon is especially plentiful. But compared with January 1966, the index this January was up 2.7 percent. Prices were lower than in January 1966 for canned pink salmon but sharply higher for

California jack mackerel (up 19.2 percent) and canned Maine sardines (up 9.7 percent). (BCF Fishery Market News.)



Oceanography

"ALUMINAUT" CONDUCTS UNDERSEA SURVEYS OFF FLORIDA

Experimental dives by the deep sea research submarine "Aluminaut" off Florida in January show the capability of such craft to perform undersea oceanographic surveys effectively, reports the U. S. Naval Oceanographic Office. The Aluminaut is owned by Reynolds Submarine Services. Five dives were performed, each 10 hours long, to 1,000 feet. Scientists from the Naval Electronics Laboratory and Lamont Geological Observatory conducted experiments on sediments and currents at the bottom.

The first dive was made to reconnoiter a selected area off the Florida coast. The second was made to the bottom at 1,000 feet. While cruising for 6 hours at 10 feet off the bottom, a photographic and visual reconnaissance was conducted up slope to 100 feet. Visibility was excellent in deep water, limited only by the artificial lights used, but dropped to about 25 feet near shore. The Aluminaut, which has wheels, actually rode along the bottom during much of this dive.

During the third, the vessel rested on the bottom. Steel balls of known weight and diameter were dropped at given distances to the bottom, clouding the waters near the ocean's floor. The amount of visibility obstructed by the disturbance of the ocean bottom is an important problem facing the Navy in its program for rescuing sailors from sunken subs using rescue vehicles. Current studies with dye markers were used to investigate ocean dynamics. Dive four investigated the maximum visual and acoustic ranges to a variety of bottom markers. The last dive evaluated the vessel's characteristics while operating at depth.

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NAVY STUDIES WAYS OF RECOVERING TESTING DEVICES

As part of a program to avoid loss of valuable underwater testing devices, the U. S.

Naval Oceanographic Office recently conducted tests adjacent to the Bahama Islands.

From the research vessel "USS Little-hales," engineers from the Instrumentation Center experimented with recovery methods for several costly devices used in oceanographic work. The first was a flotation system to recover an acoustic transducer usually towed behind a ship at depth of about 100 feet. (This distance is necessary to avoid interference from normal ship's noises.)

Costing nearly \$30,000 each, these sonar devices are packaged in a streamlined 9-foot "fish." The recovery apparatus is 2 rubber flotation bags released automatically when the towing gear parts. To aid in recovery, a signal light flashes on and a pinger is actuated. An existing requirement is that all recovery systems function instantly to prevent the 2,000 pound instrumentation housing from plummeting to depths near 500 feet. At such pressures, outside forces would prevent inflation of the recovery bags.

Test Gas That Helped Recover H-Bomb

The Navy also tested a "Monopropellant Gas Generator" designed to inflate the flotation bags under great pressures. Hydrazine gas, used to help recover the H-bomb lost off the shores of Palomares, Spain, was used. This generator would be effective to depths of 20,000 feet.

An expendable bathythermograph (BT) was tested to see if a body in free fall in ocean waters falls at a constant rate. An expendable BT is an electronic instrument of about 1½ pounds that allows a temperature profile to be made at speeds up to 30 knots in any sea state. Other special use BTs were tested.

Also tested was a Precision Fathometer Recorder, an electronic device designed to provide the oceanographer with a bottom profile.

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ROUND-THE-WORLD MAGNETIC SURVEY FLIGHT UNDERWAY

The U. S. Naval Oceanographic Office is conducting an airborne geomagnetic survey of all accessible ocean areas of the world. It is called "Project Magnet." Geomagnetic data are used to prepare navigational and world isomagnetic charts, which provide more re-

liable navigational data to ships and aircraft of all nations.

A new round-the-world flight began in February and will involve about 14 countries in 40 days. Information gathered will be distributed to all nations through the International World Data Center.

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NAVIGATIONAL FIELD SURVEY OF PACIFIC COAST AND HAWAII SCHEDULED

The Coast and Geodetic Survey (CGS) has announced that a field inspection will be made this year of navigational facilities and conditions on the coasts of California, Oregon, Washington, and Hawaii.

The findings will be incorporated in a new edition of U. S. Coast Pilot 7, one of a series of nautical books that supplies information important to navigators of U. S. coastal and intracoastal waters. Generally, the books furnish in narrative form information that cannot be shown graphically on marine charts--navigation regulations, weather, ice, freshets, routes, and port facilities.

CGS will consult with Federal agencies, port authorities, pilots, and other marine interests. Similar information about the Hawaiian Islands will be obtained during an 8-week inspection tour later this year.

A new edition of each Coast Pilot is published at intervals of 4 to 10 years. Yearly supplements bring information up to date. The information is considered vital for safe navigation, and Coast Pilots are consulted regularly by skippers of naval and commercial craft and small boat operators.

Coastal areas covered by Coast Pilot 7 will include: San Diego to Point Arguello, Calif.; Channel Islands, Calif.; Point Aruello to San Francisco Bay; San Francisco Bay; San Francisco Bay to Point St. George, Calif.; Chetco River to Columbia River, Ore.; Columbia River, Oregon and Washington; Columbia River to Strait of Juan de Fuca, Wash.; Straits of Juan de Fuca and Georgia, Wash.; Puget Sound, Wash.; and Hawaii.



STATES

Alaska

GOVERNOR URGES FISHING GEAR LIMITS

Governor Walter J. Hickel of Alaska has called for the limitation of gear in the salmon and king crab fishing industries. In a message to the Association of Pacific Fisheries, Hickel said the trend toward more and more gear, if not reversed, ultimately will damage both fisheries.

He emphasized: "From 1960 to 1966 there has been an increase of about 100 percent in the number of vessels and gill nets and almost 300 percent in the number of set nets in Bristol Bay. This increase came in the face of an outlook for poor runs in 1962, 1963, and 1964. This trend must be arrested and reversed, otherwise the fish harvest will be an economic farce, even if the runs are strong."

Hickel said the buildup of the king crab industry in the Kodiak area shows that the fishery is at or near the level of maximum sustainable yield. Any further increase in harvesting capacity could have serious repercussions, including curtailment of fishing time and a drop in efficiency.

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KING CRAB LANDINGS IN 1966 SET RECORD

Alaska king crab landings totaled 159 million pounds in 1966--an increase of 27 million pounds, or 21 percent, over 1965's 132 million pounds. The value of the 1966 catch to the fishermen was about \$16 million.



Michigan

SEEKS TO BALANCE FISHING DEMANDS WITH LIMITED STOCKS

The Conservation Commission has endorsed in principle a plan to regulate commercial fishing in Michigan's Great Lakes waters by presetting harvest areas and quotas and, when and where necessary, issuing individual fishing permits.

The new approach to balancing commercial fishing demands with limited fish stocks, particularly high-value species, departs markedly from the present system of licensing that allows unlimited entry into the sagging Great Lakes industry.

Fisheries officials stress that the proposed new control system is absolutely necessary to help put the industry back on its feet. The plan, which requires enabling legislation, would be tested first on the lake trout fishery of Lake Superior. When enough experience is gained there, the program could be refined and extended to other species of fish and other areas of the Great Lakes.

To guide the fishery in the best interests of all, the Conservation Department will encourage the establishment of advisory committees representing commercial operators, sport fishermen, and the general public.

Some Fishermen Object

To meet some objections, the Department changed that part of its proposed plan that would have regulated most commercial fishing under contracts awarded through competitive bidding. Commercial fishing interests argued that it would force too many out of business and discriminate in favor of big operators who would have a decisive edge in making top bids for contracts.

The Department conceded that its plan would restrict participation in the commercial fishing industry. But, it pointed out, operators issued permits would stand a much better chance of making good returns for their efforts than is true now. Under the present setup of wide-open entry in the industry, there are too many fishermen for the supplies of quality fish stocks.

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BUILDS VESSEL FOR GREAT LAKES RESEARCH

The State of Michigan's Conservation Department is building a vessel to carry out intensive fisheries studies in the Great Lakes.

The 60-foot steel craft, under construction at Escanaba, Mich., will be powered by

Michigan (Contd.):

twin diesel engines and rigged with the latest fish-finding and navigational equipment, including hydraulically operated netting gear, radar, and sonar. It will be manned by the Conservation Department to give its fisheries biologists accurate, up-to-date information on Great Lakes fish stocks needed to manage sport and commercial fishing for top allowable returns.

The vessel's research work first will emphasize salmon and trout populations in Lake Superior and Michigan. The vessel's home port has not been selected yet, but plans call for it to be in northern Lake Michigan. (Michigan Department of Conservation, Feb. 2, 1967.)



Mississippi

CATFISH PRODUCTION INCREASES

There are 4,500 acres of farm ponds under catfish production in southeast Mississippi. Within 2 years, 12,000 more acres will be completed. Near Yazoo City, one company is building 1,600 acres of catfish ponds, processing plant, fish meal plant, and feed mill. The capital investment is over \$4 million. Production is expected to begin within 18 months. BCF is providing technical assistance in harvesting techniques.



Texas

SHRIMP THREATENED BY DESTRUCTION OF ESTUARIES

A report of the Texas Parks and Wildlife Department to the Governor and legislature paints a discouraging picture of the shrimp fishery's future. The report states that "the

continuation of the present trend toward bulk-headed shorelines would result in diminishing shrimp production."

Here are some excerpts: "The life of the shrimp is short, and the period spent in the bays is only two or three months in duration for each successive overlapping swarm. There may be five or six such swarms during the warmer months. This brief but vital period in the bay nursery areas has become the weakest link in the life cycle of the shrimp. It is on this weak link that the future of the shrimp industry must depend.

"The crisis that has arisen is the accelerated disturbance and destruction of the estuarine nursery areas along the Texas coast. While such submerged land areas are public lands belonging to the State of Texas, they are unprotected by state regulation and are open to any and all types of man-made modification. . . .

"Rapid development of the coastal region in both industrial and residential expansion has brought piecemeal channel dredging, filling and spoiling throughout the bay systems without overall design or plan. The combined effect of such modification is great."

The report cites a recent BCF study in the Galveston Bay area comparing shrimp production along two similar shorelines--but one had been modified by construction of a dredge-fill bulkhead. Intensive sampling for 10 months produced 2.5 times more brown shrimp and 14 times more white shrimp along the natural shore than along the bulkheaded shore.

The report makes clear what is at stake: "The shrimp fishery is this nation's most valuable commercial fishery, and that of Texas is today the largest of any state. Dockside value to the fisherman amounts to about \$35,000,000 per year."



BUREAU OF COMMERCIAL FISHERIES PROGRAMS

Invertebrates in New England Marine Waters May Have Value

A summary of benthic (sea bottom) fauna data from an Atlantic Continental Shelf and Slope study by BCF's Biological Laboratory at Woods Hole, Mass., shows interesting relationships between the density of different groups of animals and the type of bottom sediments they inhabit.

Sea scallops (*Placopecten*) and lobsters (*Homarus*) are the only benthic invertebrates now being fished in offshore waters. It may become economically worthwhile in the future to use other benthic species for human food, animal food, fertilizer, etc. The large standing crop of invertebrates in New England marine waters grows rapidly--and so may have a useful potential.



Seattle Lab Studies Gray Whales

The BCF Marine Mammal Biological Laboratory in Seattle, Wash., was authorized to take 40 (later increased to 60) gray whales in 1966 to obtain data on the reproductive cycle and other biologic features of the gray whale. The data are essential to any further use of the species. The 1967 quota is 100 whales.



BCF's "Undaunted" Cooperates in Fishery Research

For several years BCF's "Undaunted," "Geronimo," and "Oregon" cooperated with the UN Caribbean Fishery Development Project by providing space for trainees from underdeveloped nations during Caribbean operations. The Development Project recently acquired the 82-foot multipurpose "Calamar," based in Barbados.

Now the Calamar and Undaunted are cooperating southeast of Barbados in tuna explorations--the former using longline gear and the latter bait fishing and conducting oceanographic studies. Their scientists will compare results.



"Oregon II" is Christened

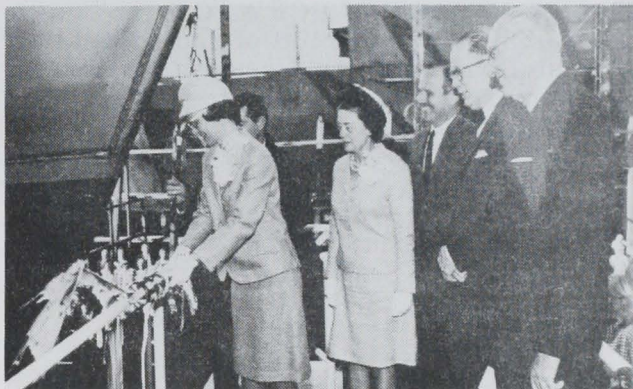


Fig. 1 - Mrs. Harvey R. Bullis Jr., wife of the Base Director, Exploratory Fishing and Gear Research Base, Pascagoula, Miss., breaks a bottle of champagne on the bow of the BCF research vessel Oregon II during christening on February 4 in Pascagoula. At extreme right is Seton Thompson, BCF's Regional Director in St. Petersburg, Fla.

The 170-foot craft is being constructed by the Ingalls Shipbuilding Division of Litton Industries. Scheduled for completion in May, it will be assigned to the Pascagoula Base and become operational after July. It will be used to develop the fisheries of the Gulf of Mexico and Tropical Atlantic.



Fig. 2 - The R/V Oregon II slides down the ways into the "Singing River" following christening. (Photos: Ingalls)



"Oregon" Reports Red Snappers Off Honduras

The recent cruise of BCF's "Oregon" revealed a high catch potential of red snapper off British Honduras. As a result, several U. S. commercial vessels plan to fish experimentally in that area. The first of the fleet was scheduled to sail in mid-February.

If this fishery were developed, it would parallel the one now occurring off Nicaragua. There, about 25 U. S. vessels are fishing successfully for snapper stocks discovered by the Oregon.



BCF and Navy Conduct Oceanographic Explorations

BCF's Gloucester (Mass.) based exploratory vessel "Delaware" is conducting tuna and swordfish explorations in the western North Atlantic during March. The Navy's Oceanographic Prediction Office is taking part in the explorations by providing expendable bathythermograph probes for determining subsurface temperature gradients.

Using these instruments will enable BCF to evaluate the expendable bathythermograph system for use on fishing vessels--and provide the Navy with wanted oceanographic data.



Trade Fairs Sell Calico Scallops

The display and promotion of North Carolina calico scallops by BCF's Office of International Trade Promotion at Paris and Milan trade fairs prompted one of the largest U. S. fishery firms to order 30,000 pounds for export. The manager of the firm's international division has recommended that calico scallops be added to the firm's domestic line.

At the London Frozen Food Exhibit, February 14-23, both breaded and plain calico scallops, individually frozen by a liquid nitrogen process, were displayed.

BCF's exploratory fishing operations along the South Atlantic coast have outlined the boundaries of vast resources of calico scallops. It is expected that the opening of export markets would lead to fuller use of these resources--and aid the overall economic growth of the Southeast Coastal States.



U. S. Fishery Products To Be Shown in Frankfurt

Fishery products produced or processed in the U. S. will be among food items displayed and promoted at the United States Trade Center in Frankfurt, Germany, April 5-14. Frankfurt will be the 11th overseas trade fair in which BCF has participated in cooperation with the U. S. Department of Agriculture.

More information is available from: Office of International Trade Promotion, Bureau of Commercial Fisheries, Room 606, Lynn Building, 111-19th St. N., Arlington, Va. 22209.



FEDERAL ACTIONS

Atomic Energy Commission

ADVANCES FOOD IRRADIATION PROGRAM

Irradiated meat that needs no refrigeration will be produced in commercial quantities under a contract with the Atomic Energy Commission (AEC). The AEC asked for bids before April 17, 1967, on a plant that would produce a million pounds of meat a year for three years.

The U. S. Army, which has a prime interest in the plant, has promised to buy 300,000 pounds of meat a year. Irradiated bacon and potatoes already have been used by the Army in small quantities overseas.

The purpose of the program is to demonstrate the feasibility of large-scale processing of foods at competitive cost. The AEC is putting up \$140,000 for engineering design and \$230,000 for radiation sources. The contractor will pay for the plant.

The Food and Drug Administration already has approved irradiated bacon, white potatoes, wheat and wheat flour for commercial use. The AEC hopes that ham and other pork will be approved in 1967, followed in 1968 by chicken, beef, shrimp, and pork sausage. ("Science News," Dec. 31, 1966.)



Food and Drug Administration

CANNED TUNA NOW INCLUDES BLACKFIN

An amendment to the standard of identity for canned tuna (21 CFR 37.1) to include blackfin tuna in the class of fish known as tuna will become effective March 1, 1967.



Economic Development Administration

FUNDS ASSURE PACIFIC HAKE FISHERY

Funds approved by the Economic Development Administration, Department of Commerce, will be used to develop further the Pacific hake fishery out of Aberdeen, Washington. The funds were requested by the Grays Harbor Regional Planning Commission.

BCF's Exploratory Fishing Base in Seattle will provide technical supervision and

equipment. It will arrange the charter of commercial fishing vessels in test fishing for hake. The use of these vessels may accelerate the development of a domestic fishery.

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PROJECT COULD AID COASTAL CLAM FLATS

A \$221,300 grant by the Economic Development Administration (EDA) will help build a sewer system in Waldoboro, Maine, that ultimately will serve over 200 acres of industrial and commercial land. The system also will stop pollution of the area's streams and coastal waters.

The State of Maine Water Improvement Commission states that these waste-treatment facilities will make possible the reopening of coastal clam flats closed 3 years ago because of pollution. This would provide jobs for 100 full-time and 100 part-time clam diggers.

The system will cost \$621,800. Besides EDA financing, Interior Department's Federal Water Pollution Control Administration is granting \$89,640. Local revenue bonds and a State of Maine grant provide the remaining \$310,860.

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STUDY OF FISH REDUCTION PROCESS APPROVED

A project to evaluate an experimental fish reduction process applicable to small fishery industries has been approved by the Economic Development Administration (EDA) of the Commerce Department. The project was submitted by BCF's Regional Office in Ann Arbor, Mich. EDA will provide \$148,600 and BCF \$39,400 in services and equipment.

The study will determine and make available to the fishing industry information on: (1) the market potential of experimental processed wholefish product (press-cake) that can be used safely in animal diets, particularly mink; (2) the engineering aspects of producing press-cake; (3) the economics of producing it--including utilization of byproducts.

BCF's Branches of Technology, Marketing and Economic Research will jointly carry out the study.

